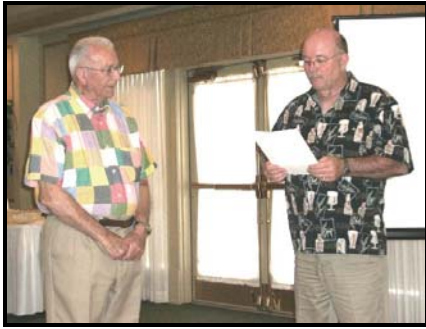


## Retiring Pilot Examiner Holds FAA Record



C. D. "Tommy" Tomkins receiving an award from Larry Arenholz, Operations Supervisor at the Des Moines FSDO, for his many years as a Designated Pilot Examiner (DPE). Tommy is retiring as a DPE for the Des Moines FSDO.

Tommy was designated as a Pilot Examiner for this office in 1951, making him the most experienced DPE on record in the FAA National DPE database.

Tommy's smile and pleasant demeanor along with his professional attitude have been a welcome sight for pilot candidates for many years. Tommy was also the only Seaplane pilot examiner for the state of Iowa. Tommy has made a significant contribution to the DPE program representing the FAA.

Tommy was also a P-38 pilot during World War II.

*We all wish Tommy good luck to a well deserved retirement.*

## Wright Brothers & Charles Taylor Award Presentation



H. J. "Jerry" Dwyer along with his wife, Barbara, accepts the Wright Brothers Master Pilot Award and Charles Taylor Award from Kenneth Rieger, Des Moines FSDO Manager.

Mr. Rieger presented this award at the 2008 Midwest Regional Aircraft Maintenance Symposium at Ames, Iowa, on February 1, 2008.

Even though these awards have been presented many times before individually, this was the first time in Iowa that both awards were presented to the same person simultaneously.

The awards recognized Mr. Dwyer for his many years of experience as an active pilot and aircraft mechanic.

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## B-17 Flying Fortress



EAA's B-17 Flying Fortress departs Ankeny on June 27, 2008, to continue the 2008 Tour stops. The "Aluminum Overcast" is an example of the American heavy bomber that helped turn the tide of battle in World War II.

## Des Moines FSDO Receives Silver Eagle Award



The Quality Assurance Staff of AFS-40, was pleased to present the 3<sup>rd</sup> Annual Silver Eagle Award for exemplary performance to the Des Moines Flight Standards District Office.

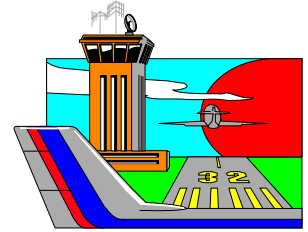
Shown receiving the award for the Des Moines FSDO are from left to right: Airworthiness Supervisor, Robert Watkins; Operations Supervisor, Larry Arenholz; Des Moines FSDO Manager, Kenneth Rieger; and Amber Rivera AFS-40.

The Silver Eagle Award is presented to the office that has had the least findings during an audit, taken appropriate action in a timely manner to close out those findings, and has conducted a significant number of self audits to remain current. Another key factor of the Silver Eagle Award is that the recipients have made significant contributions toward the FAA's Safety Program. When comparing the performance of all Flight Standards Evaluation Program auditees during the past year, there is no doubt that the Des Moines FSDO is the most deserving of recognition as a Silver Eagle Award Recipient.

The Des Moines FSDO exemplifies the type of Flight Standards office that goes above and beyond with their service to the FAA Flight Standards community. It is with these accomplishments in mind that the Quality Assurance Staff was pleased and honored to present the 3<sup>rd</sup> Annual Silver Eagle Award to the Des Moines Flight Standards District Office.

The following article is courtesy of NASA's Aviation Safety Reporting System:

## Why ATC Declares an Emergency



For an ASRS reporter, erratic oil pressure readings led to an ATC declaration of an emergency.

- I told Center that I wanted to divert to ZZZ because of erratic oil pressure readings. I explained that I was pretty sure it was the gauge and wanted to land just to be sure and that all else was fine. They cleared me to ZZZ and put me over to ZZZ Approach. ZZZ Approach asked me, how many souls on board? And, how much fuel? I replied '2 on board and a couple hours of fuel and that I did not declare an emergency and was fine.'...They vectored me in for straight-in final and cleared me to land on Runway YY. They had a fire truck waiting for me. This, in my opinion, was overkill and a waste. Maybe they didn't believe that I was fine...Now the FAA has contacted me asking about the incident...I was straight [forward] with the situation and what did I get?—Fire trucks and a call from the FAA....*

Air traffic controllers operate under the instructions provided in Order 7110.65S (Air Traffic Control Manual). Section 10-1-1-d of this manual states, "...When you believe an emergency exists or is imminent, select and pursue a course of action which appears to be most appropriate under the circumstances and which most nearly conforms to the instructions in this manual."

Controllers are further instructed to "provide maximum assistance" to aircraft in distress, and to enlist emergency services and facilities "when the pilot requests or when you deem necessary."

Controllers, in other words, must rely on their best

judgment of when to declare an emergency for a pilot. Situations that merit an ATC emergency declaration include, but are not limited to, the following [Section 10-2-5 of the Air Traffic Control Manual]:

- Officials responsible for the operation of the aircraft [dispatchers, for example] inform ATC of an emergency.
- There is an unexpected loss of radar contact and radio communications with any IFR or VFR aircraft.
- Reports indicate an aircraft has made a forced landing, is about to do so, or its operating efficiency is so impaired that a forced landing will be necessary.
- Reports indicate the crew has abandoned the aircraft or is about to do so.
- An emergency radar beacon response is received.

To return to our report example, erratic oil pressure readings may be symptomatic of a situation that could lead to a forced landing, whether or not the pilot thinks that is likely. ATC's declaration of an emergency was understandable in this situation.

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“The trouble with the future is it usually arrives before we are ready for it.”

\*\*\*\*\*



With the summer season upon us, it is a good time to review some of the hazards and avoidance procedures with thunderstorms.

Turbulence, hail, rain, snow, lightning, sustained updrafts and downdrafts, icing conditions - all are present in thunderstorms. While there is some evidence that maximum turbulence exists at the

middle level of a thunderstorm, recent studies show little variation of turbulence intensity with altitude.

There is no useful correlation between the external visual appearance of thunderstorms and the severity or amount of turbulence or hail within them. The visible thunderstorm cloud is only a portion of a turbulent system whose updrafts and downdrafts often extend far beyond the visible storm cloud. Severe turbulence can be expected up to 20 miles from severe thunderstorms. This distance decreases about 10 miles in less severe storms.

Weather radar, airborne or ground based, will normally reflect the areas of moderate to heavy precipitation (radar does not detect turbulence). The frequency and severity of turbulence generally increases with the radar reflectivity which is closely associated with the areas of highest liquid water content of the storm.

**NO FLIGHT PATH THROUGH AN AREA OF STRONG OR VERY STRONG RADAR ECHOES SEPARATED BY 20-30 MILES OR LESS MAY BE CONSIDERED FREE OF SEVERE TURBULENCE.**

Turbulence beneath a thunderstorm should not be minimized. This is especially true when the relative humidity is low in any layer between the surface and 15,000 feet. Then, the lower altitudes may be characterized by strong out flowing winds and severe turbulence.

The probability of lightning strikes occurring to aircraft is greatest when operating at altitudes where temperatures are between minus 5 degrees Celsius and plus 5 degrees Celsius. Lightning can strike aircraft flying in the clear in the vicinity of a thunderstorm.

METAR reports do not include a description for severe thunderstorms. However, by understanding severe thunderstorm criteria, i.e., 50 knot winds or ¾ inch hail, the information is available in the report to know that one is occurring.

Current weather radar systems are able to objectively determine precipitation intensity. These

precipitation intensity areas are described as “light,” “moderate,” “heavy”, and “extreme.”

### **Thunderstorm Avoidance Flying**

Above all, remember this: never regard any thunderstorm “lightly” even when radar observers report the echoes are of light intensity. ***Avoiding thunderstorms is the best policy.***

Don’t land or takeoff in the face of an approaching thunderstorm. A sudden gust front of low level turbulence could cause loss of control.

Don’t attempt to fly under a thunderstorm even if you can see through to the other side. Turbulence and wind shear under the storm could be disastrous.

Don’t trust the visual appearance to be a reliable indicator of the turbulence inside a thunderstorm.

Do circumnavigate the entire area if the area has 6/10 thunderstorm coverage.

Do regard as extremely hazardous any thunderstorm with tops 35,000 feet or higher whether the top is visually sighted or determined by radar.

\*\*\*\*\*

“A successful man is one who can  
lay a firm foundation with the bricks  
others have thrown at him.”

\*\*\*\*\*

## **FAA to Chart Contact Frequencies for MOAs, Restricted Areas**

Instead of feeling compelled to fly around charted military operations areas (MOAs) and restricted areas, soon you’ll be able to gather real-time status information in the air to determine if you can safely fly through the airspace.

The Air Force and Air National Guard have worked with the FAA to provide contact frequencies for an FAA center controller, military air traffic controller, or range control officer for each MOA and restricted area so that pilots can make radio calls to

see if the airspace is active, and if it is, at what altitudes.

The frequencies will appear with new charting cycles and be completed by the August cycle.

Often, when MOAs are active, the military is using a higher floor than what is printed on the chart. In these cases, pilots can find out the floor and decide whether they can safely fly under it.

Some contact frequencies will be printed adjacent to the special-use airspace on the sectional chart, while others will appear on the side tab of the chart or along the bottom in the special-use airspace table.

\*\*\*\*\*

“A father carries pictures where his money used to be.”  
\*\*\*\*\*

## **Helicopter Trainer Seeks to Steer Clear Of Graveyard Spiral**



**June 2, 2008** – General aviation helicopter pilots now have access to a new training tool recently acquired by the Civil Aerospace Medical Institute (CAMI) in Oklahoma City, Okla. The GAT-II HELO at CAMI.

Rogers Shaw (seated) is pictured with private sector engineer Lawrence Beavens (left); Joe Tintera, Flight Standards Regulatory Support Division Manager; Dr. Melchor Antuñano, CAMI Director; and Dr. Dick Jones, Aerospace Medical Education Division Manager.

In addition to basic flight and instrument navigation training, the General Aviation Trainer (GAT)-II HELO provides a unique opportunity to familiarize pilots with the dangers of spatial disorientation, said Rogers Shaw, Aviation Education Programs team leader.

“Spatial disorientation is basically not knowing where your aircraft is physically located in relationship to Mother Earth,” explained Shaw. “You just don’t know where the horizon is.”

CAMI statistics reveal that nine out of 10 helicopter mishaps involving spatial disorientation are fatal.

At the root of spatial disorientation issues are the three canals of the inner ear, which allow humans to maintain balance on the ground. In the air, these canals send signals to the brain pertaining to yaw, pitch, and roll. However, since flight is an unnatural state for humans, the signals sent are not always accurate — particularly when visibility is low.

“If you have visual cues, they usually work together [with the inner ear], and everybody’s happy,” said Shaw. “If you don’t have visual cues, and you move your head the wrong way, and you don’t understand what’s happening, you’re going to have some problems.”

By way of example, Shaw pointed to the “Graveyard Spiral,” a sensory illusion that can be recreated in the GAT-II trainer.

“Say you’re making a nice left turn,” explained Shaw. “When you come back and roll out level, the fluid [in your inner ear] reverses itself, and you basically feel like you’re going into a right turn. If you don’t believe your instruments, you’d go right back into the left turn.” The illusion can result in the pilot entering into a deadly spiral that sends the aircraft crashing into the ground.

Other illusions that can be recreated in the GAT-II HELO include the “coriolis effect,” which can occur when two inner-ear canals are stimulated by the sudden tilting of the pilot’s head. This can produce the sensation of the aircraft rolling, pitching, and yawing all at the same time. “You’d get a ‘tumbling’ effect,” said Shaw, “and you’re

probably going to pull [the aircraft] into the tumble with you.”

Shaw said the goal of the training is to help pilots recognize and avoid these illusions; as well as learn how to recover from them should they occur.

CAMI already had three fixed-wing GATs in its inventory, but Shaw said the HELO trainer marks the first opportunity the Institute has had to target helicopter pilots.

One of the major benefits the HELO trainer provides over its fixed-wing equivalents is a large interior screen that provides simulator-style visuals. “You’ve got to have some visual cues with the helicopter that you don’t need with the fixed-wing,” observed Shaw. “It’s very dramatic.”

CAMI is looking at utilizing the \$160,000 GAT in a variety of ways: integrating it into existing physiological training courses at the FAA Academy, as well as establishing new courses specifically targeting the helicopter community.

“We’ve already gotten calls from down in Texas where they have the big oil off-riggers,” noted Shaw. “The helicopter business is increasing,” he said. “The cost of helicopters is going down because they’re getting better maintenance on them. So, there’s a lot more helicopter business coming up.” Shaw sees Helicopter Emergency Medical Services pilots as another community that could greatly benefit from the trainer.

“Today’s pilots need to have that kind of training,” stated Shaw. “In the military, we got it all the time. But the Vietnam veterans are all leaving — that group is starting to fall away — and we’re getting new helicopter guys who have not had military training. They need to see what [spatial disorientation] feels like.”

In addition to on-site coursework in Oklahoma City, Shaw eventually wants to be able to take the GAT-II HELO on the road, as CAMI does with its fixed-wing GATs. At the moment, however, the Institute is without the proper shipping container and trailer that would allow the trainer to be moved safely.



“We’d really like to get it on the road,” said Shaw, “but we don’t want to take it and hurt it.”

Shaw is hopeful those items will be acquired with FAA funding that will become available at the end of the fiscal year.



The FAA has implemented a software change on June 29<sup>th</sup> at all U. S. domestic Air Route Traffic Control Centers (ARTCC) except Anchorage. This change could affect how you file a flight plan if you are qualified to fly Area Navigation (RNAV) arrival and departure routes.

#### How does this affect you?

**NO CHANGE:** Pilots can continue to file a NAS Flight Plan/FAA Form 7233-1, as you do today, in these cases:

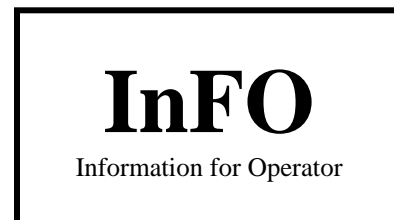
- Pilots filing **Visual Flight Rules (VFR) flight plans** are not affected by this change.
- Pilots filing **Instrument Flight Rules (IFR) flight plans who are not qualified for, or who do not want departure or arrival RNAV routes,** are not affected by this change.
- Pilots filing **point to point (RNAV direct) and “T-routes”** are not affected by this change.

**CHANGE REQUIRED:** Effective June 29<sup>th</sup> at 0900 UTC, pilots filing **domestic IFR flight plans who are qualified for and desire RNAV departure or arrival routing, including RNAV Standard Instrument Departures (SID) and RNAV Standard Terminal Arrival Routes**

**(STAR),** will need to file using FAA Form 7233-4, International Flight Plan, commonly called an ICAO FPL (International Civil Aviation Organization Filed Flight Plan).

- When contacting a flight plan filing service, pilots should advise the flight plan filer that they need to file **an ICAO FPL for domestic RNAV.**
- To assist you with questions the filer may have on your equipment and RNAV capability when you call to file, pilots should be familiar with the appropriate equipment suffix. Being familiar with this information will also help you communicate with controllers in the event you are qualified for RNAV but do not receive the RNAV arrival or departure you were expecting.

Information on flight plan filing and the June 29<sup>th</sup> transition is available on the internet at: [faa.gov/ato?k=fpl](http://faa.gov/ato?k=fpl). Additional pilot guidance is available on the website at Pilot Guidance.



**SUBJECT:** Acknowledgement of Altitude Clearances and Altitude Read Back

**PURPOSE:** This InFO informs operators of new procedures for the acknowledgement/read back of altitude clearances as directed in Federal Aviation Administration (FAA) Order 7110.65, Air Traffic Control, Paragraph 2-4-3, *Pilot Acknowledgement/Read Back*.

**BACKGROUND:** Over the past several months, misunderstood altitude clearances have resulted in multiple losses of separation. These losses of separation have resulted from both pilot deviations and operational errors. Mistaken altitude clearances often leave little time for air traffic controllers to

detect and correct altitudes before separation is lost. These new air traffic procedures are intended to increase flight crew awareness of the need to correctly conform to altitude clearances.

**DISCUSSION:** The FAA Air Traffic Organization is updating FAA Order 7110.65, paragraph 2-4-3 guidance to controllers. When issuing altitude clearances or instructions, controllers will ensure acknowledgment by the pilot as follows:

Except when issued in conjunction with an approach clearance, controllers will request a specific read back of all altitude clearances when not received from the pilot. Because of the volume of phraseology already associated with approach clearances, specific read back of altitude clearances in an approach clearance is not mandatory; however, to the extent traffic volume allows it is still encouraged.

Pilots omitting altitude read back should expect the following or similar controller phraseology:

***"American Four Ninety Two, verify assigned altitude/flight level."***

**RECOMMENDED ACTION:** Pilots should read back altitude/flight level assignments. Pilots and operators need to be aware of the change in phraseology and that ATC may request pilots to verify their assigned altitude/flight level.



## FAASTeam News

***Welcome to The WINGS -  
Pilot Proficiency Program!***

The WINGS - Pilot Proficiency Program is based on the premise that pilots who maintain currency and proficiency in the basics of flight will enjoy a

safer and more stress-free flying experience. Minimum requirements, which include specific subjects and flight maneuvers from the appropriate Practical Test Standards, are established for airplanes, seaplanes and amphibians, rotorcraft, gliders, lighter-than-air, powered parachutes, weight-shift control, and light sport aircraft. Pilots may select the category and class of aircraft in which they wish to receive training and in which they wish to demonstrate their flight proficiency. All training must place special emphasis on safety of flight operations. All proficiency requirements for each phase of the program must be demonstrated to the applicable standard, i.e., Practical Test Standards or Industry Course Completion Standards, etc., designated for the course or syllabus used.

The program is designed to encourage an on-going training program that will provide a participant an opportunity to fly on a regular basis with an authorized flight instructor. With this in mind, three phases or levels of the program have been designed to allow for flexibility in obtaining the level of currency and proficiency one desires. The program is most effective if the training is accomplished regularly throughout the year, thus affording a pilot the opportunity to fly in different seasons and in different flight conditions that may be encountered from time to time. The terms phase and level are used interchangeably throughout this program.

Regular proficiency training is essential to the safety of all pilots and their passengers. Each pilot must take a personal interest in their safety and that of their passengers. The WINGS - Pilot Proficiency Program is designed to help each pilot construct an educational curriculum suitable for their unique flight requirements. It encourages pilots to continue their aviation educational pursuits and requires education, review, and flight proficiency in the Areas of Operation found in current Practical Test Standards (PTS), that correspond with the leading accident causal factors.

There are three phases or levels in the new WINGS - Pilot Proficiency Program. They are Basic, Advanced, and Master.

## Congratulations to the following Wings recipients:

GAUT	ANDREW	Mason City , IA	CE01	Basic
HALL	DONALD	Johnston, IA	CE01	Basic
NIXON	TED	Cantril , IA	CE01	Basic
YEAGER	DANIEL	Iowa City, IA	CE01	Basic
MANTHE	CHRIS	Madrid, IA	CE01	Advanced
LINENWEBER	ROBERT	Saint Ann, MO	CE01	Master

Sign up today at [www.FAASafety.gov](http://www.FAASafety.gov). You'll receive notices via email for upcoming aviation seminars and events in your area. We're working to develop a thorough network of representatives to get the latest aviation news to you, the Iowa airman and aviation enthusiast.

And there's a bonus! [www.FAASafety.gov](http://www.FAASafety.gov) is the new home of the WINGS program. As in the past, AVEMCO Insurance is a proud sponsor who is giving a WINGS pin to each airman who completes the Basic Phase. With instant connectivity through the internet, your WINGS information stays up-to-date. And as before, your Basic WINGS earns your flight review requirements as in 14 CFR §61.56(e).

[www.FAASafety.gov](http://www.FAASafety.gov) is also the place to register for AMT awards. AMT training can be accomplished on-line right now. Beginning this year, applications for AMT awards will be accepted only through [www.FAASafety.gov](http://www.FAASafety.gov).

With [www.FAASafety.gov](http://www.FAASafety.gov), there's nothing to pay to join. All the information, on-line classes, and seminar notices are yours when you register. See you on-line at [www.FAASafety.gov](http://www.FAASafety.gov)!

Remember to register on [www.FAASafety.gov](http://www.FAASafety.gov) to begin your Wings participation today!

## ACCIDENTS

The Private pilot in a Cessna 172 made an emergency landing in a farm field due to loss of engine power. The aircraft came to rest in an inverted position. The aircraft sustained substantial damage and the pilot was not injured.

The Private pilot of a TBM 700 was seriously injured and a passenger fatally injured when the aircraft crashed on takeoff about a quarter mile north of the departure end of the runway. There was rain and gusty winds at the time of the accident. The aircraft was destroyed and another passenger sustained minor injuries. The pilot stated he tried to correct the aircraft attitude after encountering a powerful gust after lift-off but it would not respond.

## INCIDENTS

The Commercial pilot in a Barracuda was involved in a landing incident. The aircraft was on a test flight when the right landing gear collapsed on landing causing minor damage to the aircraft.



**Until Next Time!  
Have a Safe Flight**

Kenneth F. Rieger  
Manager, DSM FSDO





**DES MOINES FLIGHT STANDARDS DISTRICT OFFICE  
3753 SE CONVENIENCE BLVD.  
ANKENY, IA 50021**

(515) 289-3840  
(800) 728-7250  
(515) 289-3855 FAX

HOURS OF OPERATION  
MONDAY THROUGH FRIDAY  
7:45 a.m. – 4:15 p.m.

*Visitors are requested to make appointments.*

**The DSM FSDO will be closed on the following date  
in observance of a national holiday:**

**September 1, 2008**

**Labor Day**

**FEDERAL AVIATION ADMINISTRATION  
3753 SE CONVENIENCE BLVD.  
ANKENY, IA 50021**